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| ***Portable_Plant_SOP***  **SOLDERING IRON** | |
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| **DO NOT** use this machine unless a teacher has instructed you in its safe use and operation and has given permission | |
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| Approved safety glasses must be worn at all times in all ITD spaces. | Prevent fumes from breathing zone of operator or use a suitable P2 or P3 filter mask. |
| Foot Protection circleAppropriate protective footwear with substantial uppers must be worn in all ITD spaces. | A suitable workshop apron and cotton gloves are advisable. |

### **Never operate a faulty electrical power tool. Report it to your teacher.**

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### **PRE-OPERATIONAL SAFETY CHECKS**

1. **Examine the power lead and machine for damage.**
2. **Ensure that the cord does not create a slip/trip hazard.**
3. **Ensure the workspace is well ventilated to prevent fumes in the breathing zone e.g. use in open area with cross ventilation or with fume extraction system.**
4. **Check condition of soldering tip. Replace if damaged.**
5. **Ensure tip is ‘tinned’ and free from waste build-up. Once the tip has warmed-up, wipe on a damp sponge to clean it.**
6. **Leave the soldering iron in the stand when warming up.**
7. **Never leave a soldering iron unattended when turned on or still hot. Leave unplugged when not required.**

#### OPERATIONAL SAFETY CHECKS

1. **Do not plug in and turn on until the tip element has been checked, or replaced and tightened.**
2. **Never touch the soldering tip. Keep your fingers clear.**
3. **Always wear safety glasses. Smoke and hot embers can often result when soft soldering.**
4. **Avoid positioning your head directly over the soldering process. Soldering often creates fumes that can be toxic.**
5. **Avoid prolonged use. This could overheat the tip element causing it to fail or oxidise.**
6. **Always allow the soldering iron to reach the desired temperature. This can take several minutes.**
7. **Ensure electrical cords are well clear of the soldering process. Do not touch electrical cords with tip.**
8. **Wash your hands after using solder – many soft solders contain toxic lead products.**
9. **Never leave the machine unattended when still switched ON or when switched OFF but still hot.**
10. **Turn off and wait until the tip element has completely cooled before storing the machine away correctly.**

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| **NEVER flick the iron to remove excess solder.** |

#### HOUSEKEEPING

1. **Switch off, unplug and allow to cool down before storing.**
2. **Leave the work area in a safe, clean and tidy condition.**

## POTENTIAL HAZARDS

* + **Hot elements, surfaces ◼ Burns ◼ Electricity**
  + **Eye injuries ◼ Toxic fumes**  **◼ Fire**

**Date of last review:**  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Signature:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* + **Trip and slip**